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SPECIAL DATA COLLECTION SYSTEM (SDCS) EVENT REPORT,  
EASTERN KAZAKH SSR, 25 DECEMBER 1975

TELEDYNE GEOTECH

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**SPECIAL DATA COLLECTION SYSTEM EVENT REPORT**  
**Eastern Kazakh SSR, 25 December 1975**

**K.J. Hill, M.S. Dawkins, R.R. Baumstark, and M.D. Gillispie**  
**Alexandria Laboratories**  
**Teledyne Geotech, 314 Montgomery Street, Alexandria, Virginia 22314**

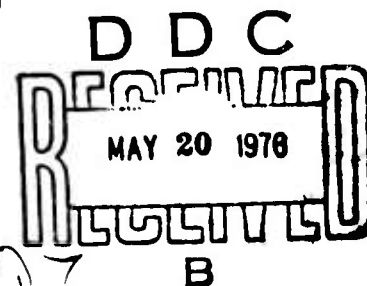
**March 1976**

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SDCS EVENT REPORT NO. 68

Eastern Kazakh SSR, 25 December 1975

This event report contains seismic data from the Special Data Collection System (SDCS), and other sources for the above event. Published epicenter information from seismic observations is:

	"P" Arrival	Origin Time	Lat.	Long.	$m_b$	$M_s$
NORSAR	05:24:19.7	05:17:03	50 N	078 E	6.3	N/A
Hagfors	05:24:10.2	05:16:39	50 N	084 E	6.9	N/A

Using SDCS stations, LASA and NORSAR, the epicenter location and magnitudes become

05:16:57.4    49.8N    078.8E    5.8    3.2

All SDCS stations were operational during this period.

Short-period signals associated with this event were recorded at all SDCS stations, LASA and NORSAR. Horizontal SP channels at all SDCS stations were rotated. NORSAR "P" arrival was obtained from their bulletin; the TAL transmission was not recoverable.

ALPA recorded a long-period signal for this event. LP signals were masked by Iceland Event at RK-ON, CPSO, FN-WV, and HN-ME. WH2YK and NORSAR did not record LP signal arrivals for this event and were not included in this report. Polarity of the LP radial channel at RK-ON was reversed; to correct this, a mathematical inversion of the LP radial data was performed before the horizontal channels were rotated. Horizontal LP channels at CPSO, HN-ME, RK-ON, and FN-WV were rotated. Validity of the ALPA long-period vertical beam is uncertain and horizontal beams were not included because of program recovery problems. LASA long-period data were not included because of complicated recovery procedures.

Scaling factors on plots are millimicrons at 1 Hz (not corrected for instrument response) with the exception of the LASA short-period plot. LASA SP scaling factors are millimicrons per inch.

# STATION DESCRIPTION

SITE CODE	LOCATION	SITE COORDINATES		ELEVATION METERS	INSTRUMENTATION	
		DEG	MN SECS		SHORT-PERIOD	LONG-PERIOD
ALPA	Alaska	55 14 147	00.0 N 44 36.0 W	626	None	31300
CPSO	McMinnville, Tennessee	35 35 085	41.4 N 34 13.5 W	574	6480 V 7515 H	SL210 V SL220 H
FN-WV	Franklin, West Virginia	38 32 079	58.0 N 30 47.0 W	910	KS36000	KS36000
LASA	Billings, Montana	46 41 106	19.0 N 13 20.0 W	744	HS10	7505A V 8790C H
HN-ME	Houlton, Maine	46 09 067	43.0 N 59 09.0 W	213	KS36000	KS36000
NORSAR	Kjeller, Norway	60 49 010	25.4 N 49 56.5 E	379	HS10	7505A V 8700C H
RK-ON	Red Lake, Ontario	50 50 093	20.0 N 40 20.0 W	366	18300	SL210 V SL220 H
WH2YK	White Horse, Yukon	60 41 134	41.0 N 58 02.0 W	855	18300	SL210 V SL220 H

Note: The orientation of the radial instruments at FN-WV is assumed to be 16° + 5° based on empirical data (event recordings). Rotation, where performed, is referenced to this azimuth and may be questionable.

# HYPOCENTER DETERMINATION

INPUT FOR EVENT 25 DEC 75  
05:17:00.0 50.000N 80.000E 0KM.

STA.	ARRIVAL	RESIDUALS		DIST.	AZ.
		CALC	REST	REST	REST
NAO	05 24 19.7	-0.1	-0.1	38.5	313.1
WH2YK	05 27 48.2	0.2	0.2	66.6	17.3
RK-ON	05 29 04.3	-0.8	-0.8	79.6	355.1
HN-ME	05 29 09.4	0.9	0.9	80.2	337.2
LAO	05 29 27.9	0.2	0.2	83.8	3.4
PN-WV	05 29 57.9	0.1	0.1	90.0	343.1
CPSO	05 30 15.4	-0.5	-0.5	93.9	347.2

## 67 HERRIN TRAVEL TIME TABLES

ORIGIN	IAT.	LONG.	DEPTH (KM)	SDV	IT	STA
05:16:54.0	49.668N	78.787E	-18. CALC	0.5	10	7
05:16:57.4	49.765N	78.751E	0. REST	0.5	3	7

CALC				REST			
4 . 2				4 . 2			
1	.	0		1	.	0	
0	0.	0	0	0	0.	0	0
.	.	.	.	.	.	.	.
0	0.	0	0	0	0.	0	0
0	.	0		0	.	0	
0	.	0		0	.	0	

CHI2 COVERAGE ELLIPSE; 95 PER CENT CONF..LEVEL, SDV= 0.92  
MAJOR 165.1KM. MINOR 40.7KM. AZ= 179 AREA= 21122 SQ.KM. REST

# DATA SUMMARY

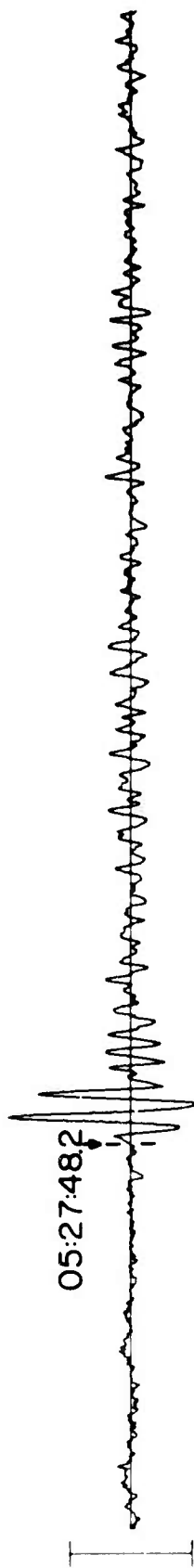
INPUT FOR EVENT 25 DEC 75  
05:17:00.0 50.000N 80.000E 0KM.

STA.	PHASE	ARRIVAL		INST	PER	A/T	MAGNITUDE		DIR	DIST
		TIME					MB	MS		
NAO	EP	05 24	19.7	AP	0.6	845.	6.08			78.5
ALPA	LR	05 54	49.0	LPZ	22.0	2.		3.20		59.8
WH2YK	EP	05 27	48.2	SPZ	0.9	156.	5.89			66.6
RK-ON	EP	05 29	04.3	SPZ	0.6	110.	5.48			79.6
HN-ME	EP	05 29	09.4	SPZ	0.9	138.	5.56			80.2
LAO	EP	05 29	27.9	SAB	1.0	232.	6.07			83.8
FN-WV	EP	05 29	57.9	SPZ	0.8	43.	5.33			90.0
CPSO	EP	05 30	15.4	SPZ	0.8	100.	5.81			93.9

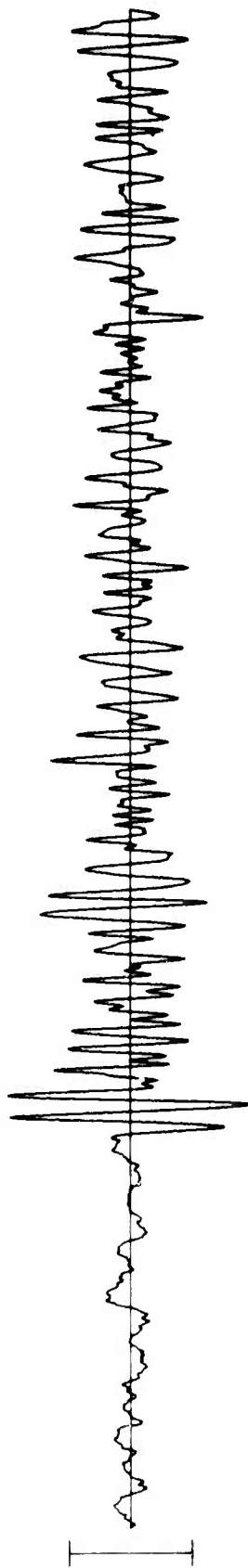
ORIGIN	IAT.	LONG.	DEPTH (KM)	MAG	SDV	STA	LP MAG	LP SDV	LP STA
05:16:54.0	49.668N	78.787E	0. CALC	5.75	0.29	7	3.20*****		1
05:16:57.4	49.765N	78.751E	0. REST	5.75	0.29	7	3.20*****		1

WH2YK 25 DEC 75

SPZ  
120.66 MU



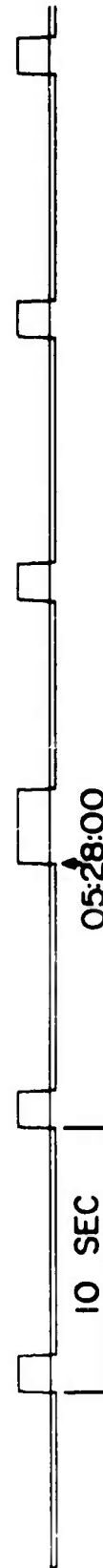
SPR  
45.14 MU



SPT  
41.77 MU

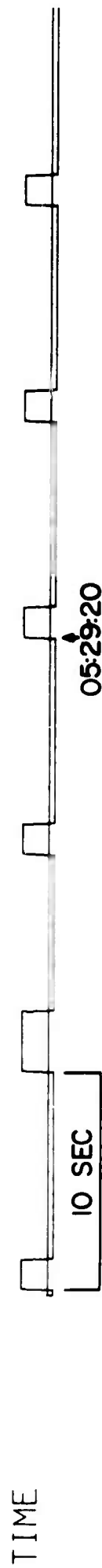
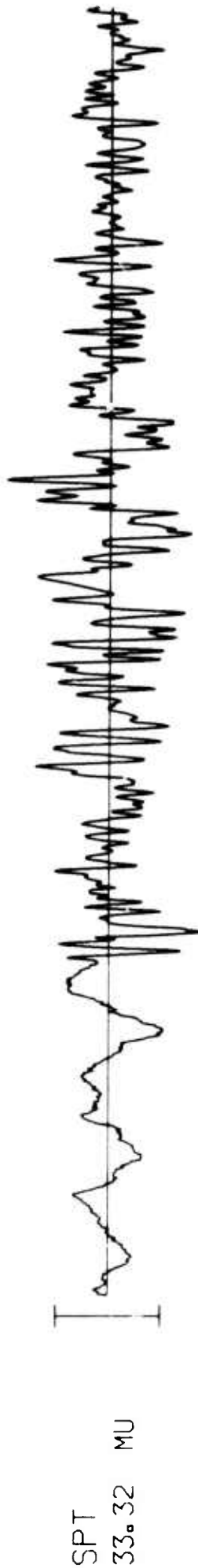
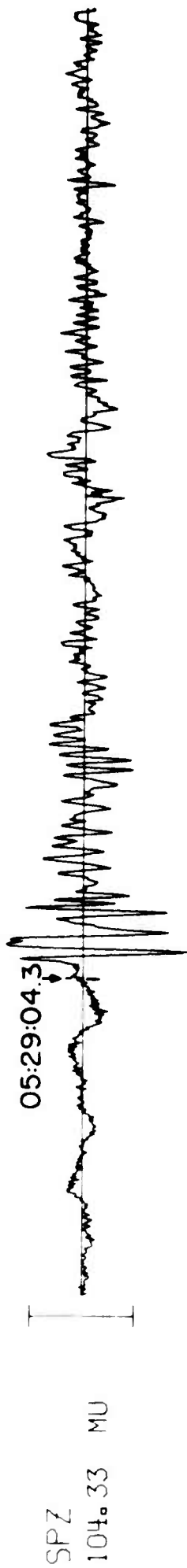


TIME



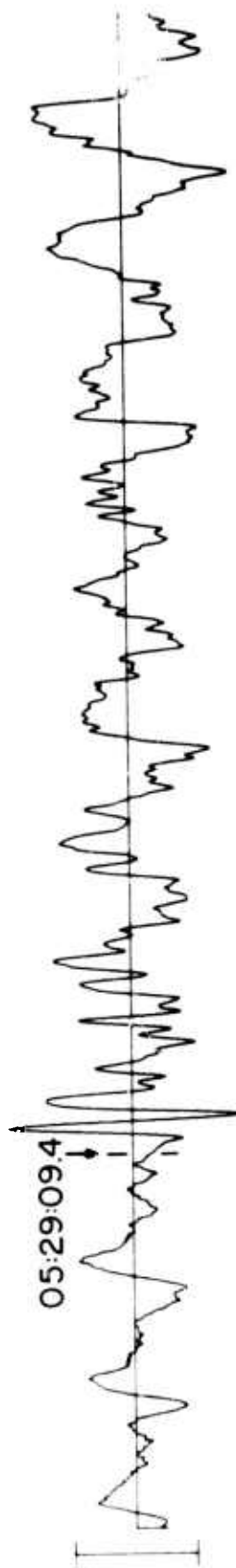


RK-ON 25 DEC 75



HN-ME 25 DEC 75

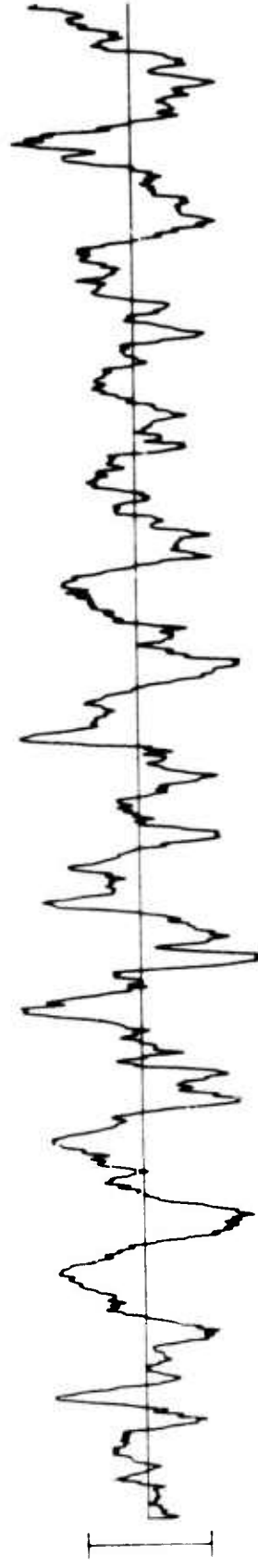
SPZ  
87.56 MU



SPR  
41.13 MU



SPT  
33.23 MU



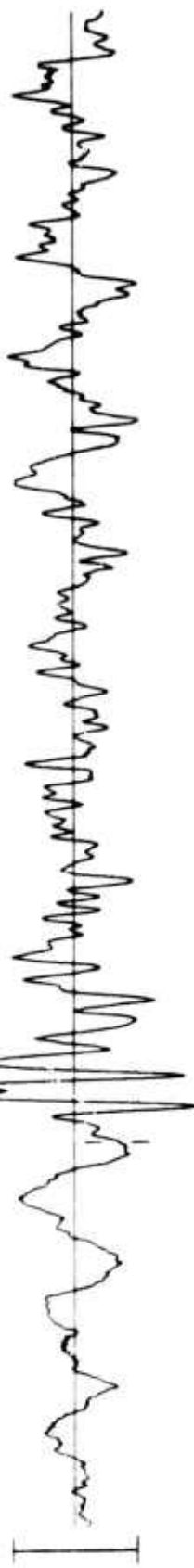
TIME



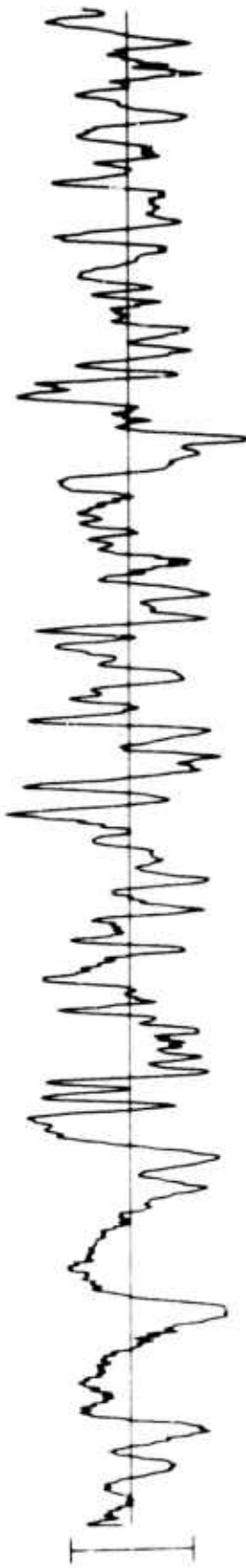
FN--WV 25 DEC 75

SPZ  
31.15 MU

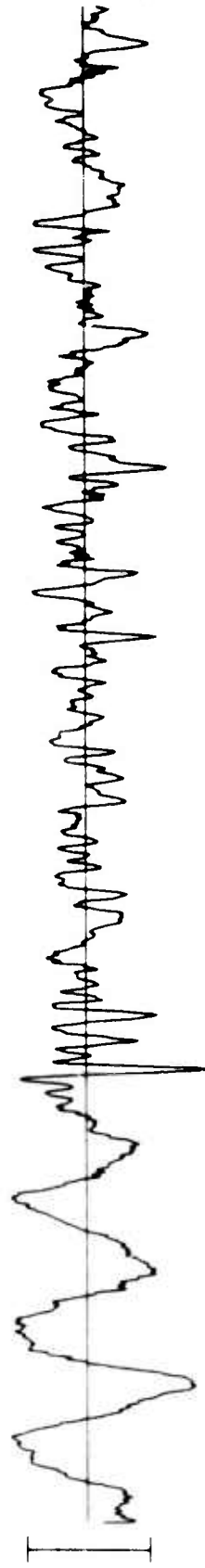
05:29:57.9



SPR  
12.52 MU



SPT  
21.75 MU



TIME

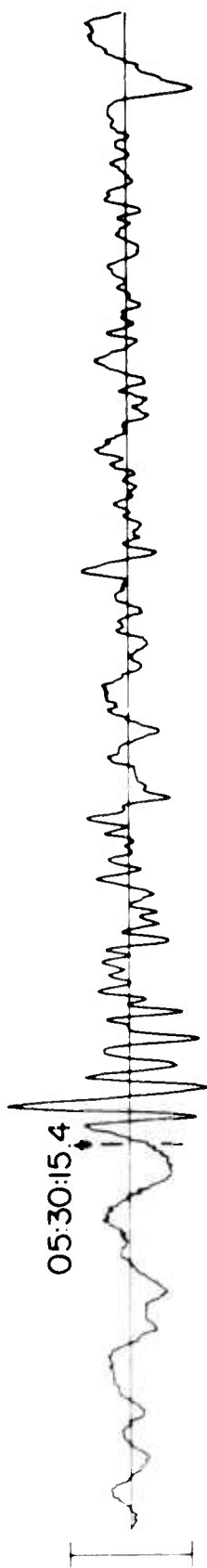


10 SEC

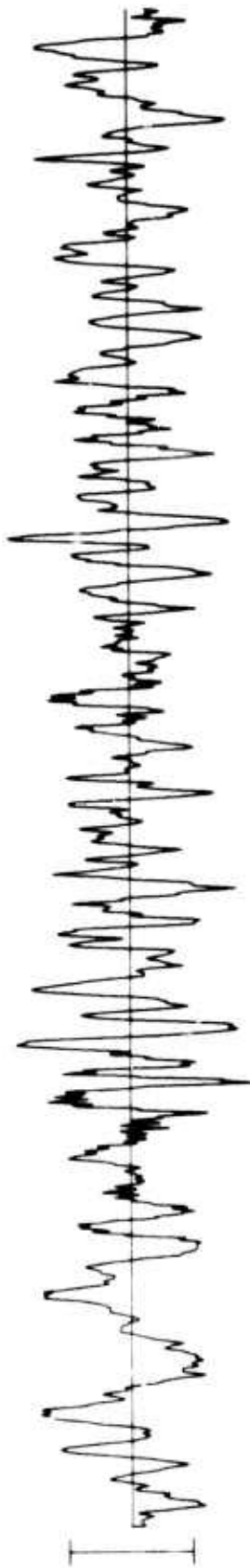
05:30:20

CPSO 25 DEC 75

SPZ  
54.88 MU



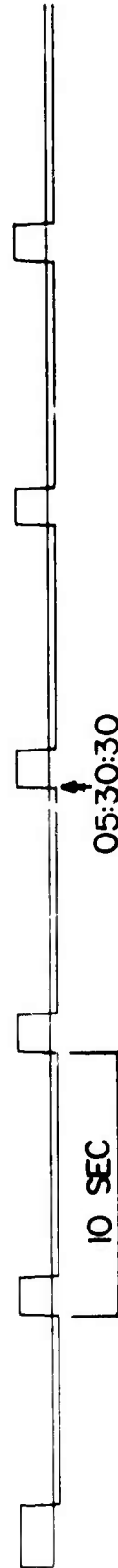
SPR  
12.64 MU



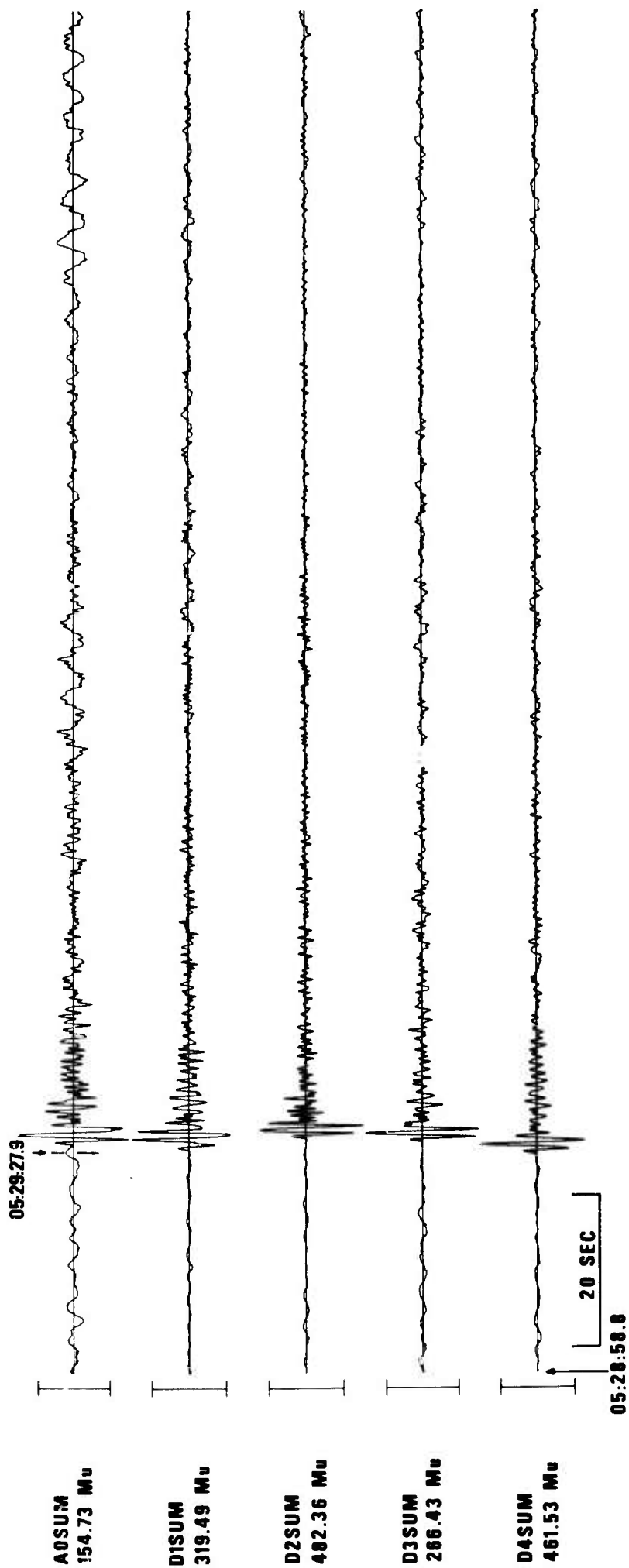
SPT  
10.18 MU



TIME



LISA INFINITE VELOCITY SUBARRAY SUMS 25 DEC 75



RK-ON 25 DEC 75

ICELAND EVENT  
06:07:49

LPZ  
1024.37 MU



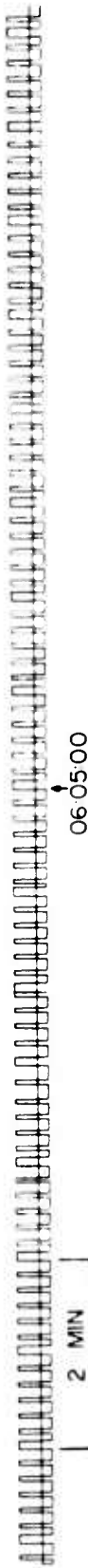
LPR  
616.27 MU



LPT  
473.61 MU



TIME



HN-ME 25 DEC 75

ICELAND EVENT  
060255

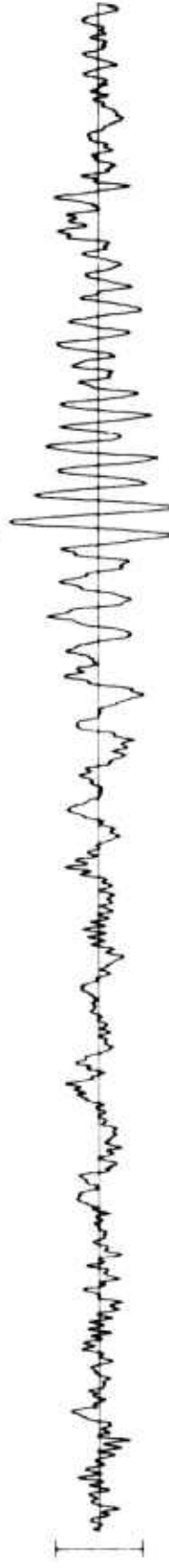
L PZ  
353.35 MU



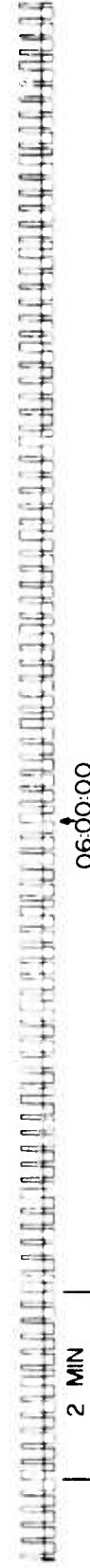
L PR  
612.69 MU



L PT  
320.11 MU



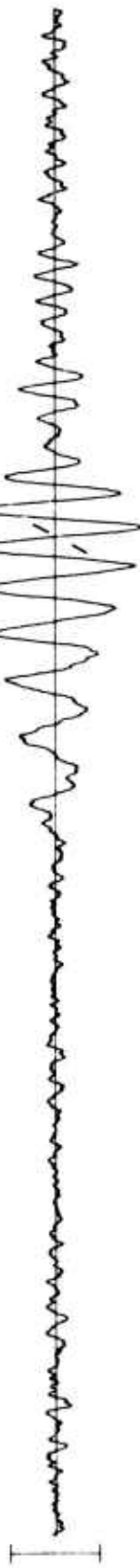
TIME



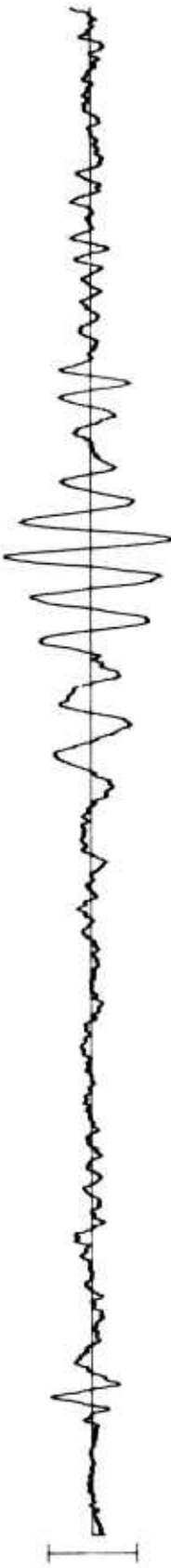
FN-WV 25 DEC 75

ICELAND EVENT  
06:08:48

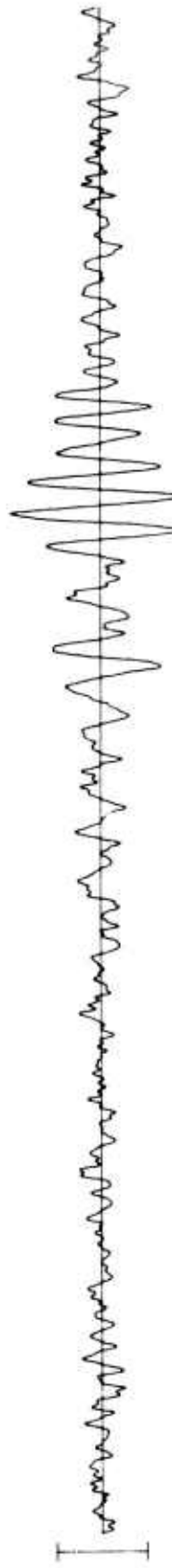
LPZ  
402.14 MU



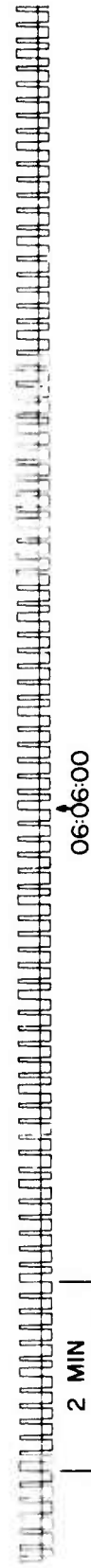
LPR  
375.50 MU



LPT  
304.76 MU



TIME





CPS0 25 DEC 75

ICELAND EVENT  
06:12:30

LPZ  
962.79 MU



LPR  
857.14 MU



LPT  
526.53 MU



TIME



ALPHA LONG PERIOD VERTICAL BEAM 25 DEC 75

